

Macro/Micro— Waste to Recylo

Mini-inquiry project

Note to reader! This is a guided inquiry project. Feel free to use it as a guide, possible suggestions, or a step-by-step process to begin to answer your essential question.

Lakeview School keeps growing bigger and bigger. It's a fun and exiting place to be with many different people. It's not just our school that keeps growing, our city also is in a growth stage that has added several neighbourhoods to our 129 year old city. Lakeview getting bigger is good because our family keeps growing but it can also create challenges.

In this mini-inquiry project, you will be working as the Office of the City Manager of Saskatoon. It is your job to make sure that you maintain Saskatoon's slogan, "Striving for Excellence - Our Commitment to Keeping Saskatoon Special." Your next project in Saskatoon is waste and recycling. You will need to explore what people produce as trash, what is recycled, and how to properly design a waste and recycling program to maximize the amount of materials that are recycled and to minimize those that are thrown into the garbage!

Essential Question:

What are the three most distinguishable characteristics of an effective municipal recycling program and how do they contribute to the success of reducing the amount of garbage that goes to the landfill?

When we keep the big ideas in mind, we learn to uncover them!

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Immerse (wonder and ask questions)

To begin to unpack your collective knowledge and wonderings about waste and recycling in Saskatoon complete the KWS sheet. This can be done either as a group or individually.

Now, to start your wonder-engines, watch this video: <http://www.youtube.com/watch?v=AOpGhAdQFEY>

Investigate (develop questions, search for and develop answers)

You will need to split your group in two. Both parts of your group will be investigating important components of waste and recycling.

Group 1:

You will perform an in-depth investigation of the geographic layout of Saskatoon's waste and recycling programs and businesses. The purpose is to observe and analyze where these locations currently are. Make sure to record all important information on your graphic organizer (Cornell's Notes) because your team will need accurate and detailed information later!

- Where does Saskatoon put their landfills and recycling centres?

(suggested resource)

[http://maps.google.ca/maps?](http://maps.google.ca/maps?hl=en&ie=UTF8&q=recycling+in+saskatoon&fb=1&gl=ca&hq=recycling&hnear=Saskatoon,+Division+No.+11,+Saskatchewan&ll=52.136017,-106.706772&spn=0.203562,0.529404&z=11)

[hl=en&ie=UTF8&q=recycling+in+saskatoon&fb=1&gl=ca&hq=recycling&hnear=Saskatoon,+Division+No.+11,+Saskatchewan&ll=52.136017,-106.706772&spn=0.203562,0.529404&z=11](http://maps.google.ca/maps?hl=en&ie=UTF8&q=recycling+in+saskatoon&fb=1&gl=ca&hq=recycling&hnear=Saskatoon,+Division+No.+11,+Saskatchewan&ll=52.136017,-106.706772&spn=0.203562,0.529404&z=11)

- What goes in landfills?

(suggested resource)

<http://www.saskatoon.ca/DEPARTMENTS/Utility%20Services/Environmental%20Services/Solid%20Waste%20Collections/Pages/LandfillInformation.aspx>

- What goes to recycling centres?

(suggested resource)

<http://www.curbsiderecycling.ca/?file=kop7.php>

Now rejoin the members of your group. It's time to start analyzing the data!

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Group 2:

You will perform an in-depth investigation into Lakeview School's waste and recycling programs.

- Where does Lakeview School put their garbage cans and recycling bins? Label them on the school map.
- What is in a classroom garbage can and hallway garbage can at Lakeview school? Use your gloves and investigate what Lakeview School throws-away as trash.

Make sure to take notes on your t-notes organizer

What did you find that should be in the garbage?

What did you find that shouldn't have been in the garbage?

Make sure to record all important information on your graphic organizer because your team will need accurate and detailed information later.

Now rejoin the members of your group. It's time to start analyzing the data!

Coalesce (synthesize key ideas and build knowledge)

Put your team together and share what you have discovered! Use a summary organizer to organize and synthesize what you have discovered about Lakeview School and the city of Saskatoon's waste and recycling.

Are there similarities between Lakeview School and Saskatoon when we consider:

- what people produce as trash
- what is recycled,
- distance between garbages/landfills, recycling bins/centres, and people's homes/places of work
- specific placements of garbages/landfills, recycling bins/centres,
- characteristics of an effective recycling program that contributes to the successful reduction in the amount of garbage that goes to the landfill?

Don't forget! As the Office of the City Manager of Saskatoon, it's your job to make sure that you maintain Saskatoon's slogan, "Striving for Excellence - Our Commitment to Keeping Saskatoon Special."

Essential Question:

What are the three most distinguishable characteristics of an effective municipal recycling program and how do they contribute to the success of reducing the amount of garbage that goes to the landfill?

Go Public (demonstrate understanding and share learning)

You made important discoveries about the important characteristics of an effective municipal recycling program and their contribution to reducing the amount of garbage that goes to the landfill. It's time to make a impact in Saskatoon Public Schools and the city of Saskatoon! What will you do?

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Curricular Outcomes

ELA

Outcome AR

Reflect on and assess their viewing, listening, reading, speaking, writing, and other representing experiences and strategies by participating in discussions and relating work to a set of criteria (e.g., “What did I learn?”).

Outcome CR

Comprehend and respond to a variety of grade-level texts (including contemporary and traditional visual, oral, written, and multimedia) that address: identity (e.g., Just Watch Me) community (e.g., People and Places) social responsibility (e.g., Friendship) and make connections to prior learning and experiences.

Outcome CC

Compose and create a range of visual, multimedia, oral, and written texts that explore: identity (e.g., My Family and Friends) community (e.g., Our Community) social responsibility (e.g., TV Ads for Children) and make connections to own life.

Physical Science – Liquids and Solids (LS)

Earth and Space Science – Air and Water in the Environment (AW)

AW2.2 Assess the importance of air and water for the health and survival of living things, including self, and the environment.

- Suggest explanations for how air and water in the environment can become polluted.
- Suggest ways that individuals can contribute to protecting and improving the quality of air and water in their environment (e.g., conserve water, do not pour chemicals down the drain, do not burn hazardous materials, and reduce travel via motorized vehicles).
- Propose an answer to a question or problem related to the importance of air and water for living things.

What goes into the garbage and where does all that garbage go? from : Collaboration & Comprehension (1998) Page 1 was the source of inspiration for Macro/Micro— From waste to recyclo

Comprehension and Collaboration: Inquiry Circles in Action (Harvey and Daniels, 2009, p. 144).

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